



Instruction manual

# **Table of Contents**

1. Safety and precautions	2
2. Accessories 3. System Connection	3 4
4. Front Panel	4 5
5. Rear Panel	6
6. Remote Control Unit	0 7
7. Quick Start	8
8. Downloading Channels	9
9. Viewing your channels	9 10
10. Multi-satellite	10
11. Favourite Channels	10
12. Electronic Programme Guide(EPG)	11
13. Selecting different audio channels	12
14. Additional Information	13
15. Parental Control	14
16. Parental Lock	14
17. Advanced users guide	16
18. Tuning Modes	17
19. Setup Satellite	18
20. Editing Channels	19
21. Arrange	19
22. Sort Free to Air Channel s	20
23. Deleting Channels	21
24. Installation	22
LNB	
TV/VCR settings	
Preferences	
Set local time	
System Information	
25. Reset to factory defaults	25
26. Trouble shooting	26
27 . Analogue option	27
28. Using the analogue option	28
29. Positioner model	32
30. Channel Listing	34
31. Audio Table	45
32. Common Interface	46
33. Common Interface(option)	47
34. Technical Specifications	48

## Safety and Precautions:

Thank you for purchasing the new SAMSUNG digital satellite receiver. For your safety and proper operation of your receiver, please take time reading this manual fully before installing and operating the receiver.

### Safety notice:

# DANGER! HIGH VOLTAGE! RISK OF ELECTRIC SHOCK!

Lethal voltages are present inside the unit. Always unplug the receiver completely from mains outlet before connecting or disconnecting anything.

No user-serviceable parts inside. Please refer all servicing to qualified service agents.

Never expose the unit to water, moisture, extreme cold or direct sunlight.

Slots are provided for proper ventilation for the unit, do not obstruct them.

Do not insert or drop small objects into the unit.

Install the unit in a well-ventilated location

Never cover the unit or operate the unit near any heat source.

It is advisable to unplug the unit from the mains, TV, and the satellite dish when a thunderstorm is expected.

#### **Cleaning your receiver**

Always unplug the unit from mains before cleaning the unit.

Do not use solvents of any kind to clean the unit, only use a soft-dry cloth.

SAMSUNG reserves the right to change specifications without prior notice. This manual only covers the version of software supplied with the receiver.

# Accessories:

User Manual: 1



Batteries: 2



UHF TV cable: 1



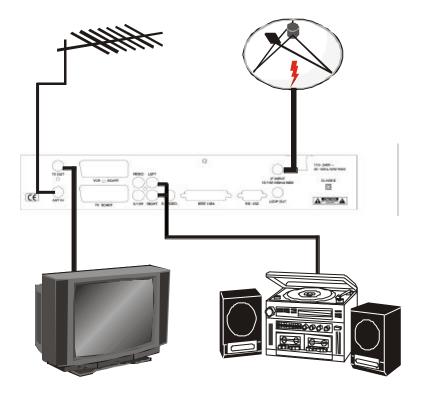
Remote Control Unit: 1



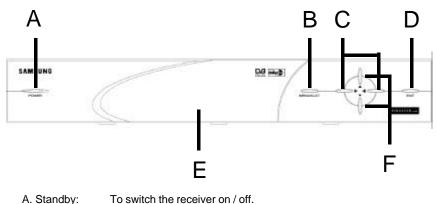
# System Connection:

Please unplug all unites from mains outlet before installation. Once all connections are made please check again before connecting the equipment to the mains outlet.

The following shows a typical installation of a satellite receiver. If you require further assistance for the installation of your satellite receiver, please contact your local distributor.



# Front Panel:



- B. Menu: To enter the main menu.
- C. Volume +/-: To increase or decrease volume level.
- D. Exit: To back step or exit from menu.
- E. Display: Displays channel mode and channel number (see below\*).
- F. Channel +/-: To change channels or move cursor in menu.

\* Display modes:

The current viewing mode is displayed by your receiver:

Mode:	Menu info bar:	Front panel LED display:
TV	TV icon + Channel. No.	Channel Number
Radio	Radio icon + Channel No.	r + Channel No.
Favourites	Heart icon + Channel No.	F + Channel No.

# Rear Panel:

	CAnelogue _ Cecode	Elept 💻
O (VORSCART	Video Left   Video	
	ā () <u> </u>	$\Box$ $\bullet$
	Mana Right 5-Video IEEE 1284 1	PS-232 Loop Out

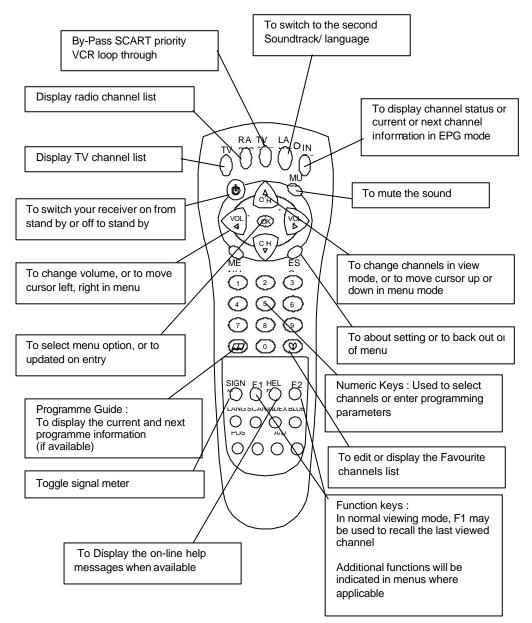
Please refer to the diagram above for all the connection possibilities of your receiver. Do not connect the unit to the mains socket until all other connections have been made and checked.

**IF Input:** Connect the cable from your dish to this connector.

- Loop Out: If you have a second satellite receiver, connect the second satellite receiver's LNB input to this connector.
- TV: Connect your TV UHF input to this connector.
- ANT: Connect your TV antenna to this connector-only in conjunction with TV UHF output.
- **TV SCART:** Use this connector to connect you TV to the receiver via a SCART cable.
- VCR SCART: Use this connector to connect you VCR to the receiver via a SCART cable.
- Video: Composite video output for connecting to a monitor etc.
- **0/12V:** 0 or 12V output for external control switch.
- Audio L/R: Audio outputs for connecting to an external stereo amplifier.
- S-Video Out: Additional output for recording with a VCR / camcorder with S-ideo capability.
- **RS232:** You can connect the receiver to a PC via this connector (advanced users only).
- **IEEE 1284:** High-speed data port for connecting with a PC (advance users only).

# Once ALL the connections are made and CHECKED, you may connect the unit to the main supply.

# Remote Control Unit:



# Quick Start:

After initialisation, the Language selection screen will be displayed.

By using the LEFT/RIGHT keys, you may select the different menu languages available. Once you have selected the desired menu language, press OK to continue with set-up.

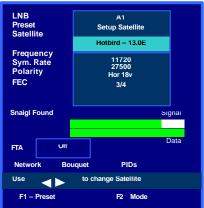
Select Menu Language English

After selecting the menu language, the receiver will display the Channel Tuning Menu: (Menu, Channel Setup, OK)

#### Preset Entry:

Move the cursor to highlight the "Satellite" box and use the LEFT/RIGHT keys to scroll through the prestored satellites. For example, if your dish is aimed at the Astra satellite, when Astra is selected, you should see both signal meters reading a good signal level. The receiver will then prompt you to press OK to start tuning to all the channels on Astra.

#### (See next page)



### Note:

1. If you wish to only tune to a specific Network or Bouquet of channels, move the cursor to highlight the "Bouquet" box and use the LEFT/RIGHT keys to scroll through the pre-stored Bouquets. You should now see both signal meters reading a good signal level and the receiver will prompt you to press OK to start tuning all the channels from the selected Network or Bouquet.

2. If you only wish to download Free-to-Air channels, high-light the FTA box and turn the option to "on".

Provided your dish is installed correctly and aligned to the relevant satellite, both the Signal and Data bars should display a GREEN bar which denotes the following:

#### The first bar shows the actual satellite SIGNAL strength

You should see a GREEN bar showing your satellite signal is medium to good. If it is RED, this normally indicates that either your dish/LNB set-up is not adequate for this satellite, or your dish is not correctly aligned.

#### The second bar shows the quality of the DATA received

This GREEN bar indicates the DATA INTEGRITY of the signal received. If the bar is RED, this indicates that the DATA received is unreliable. This could cause the picture to break up, or disappear completely.

**Note:** If "No signal found" is displayed, check that the values entered are correct and are valid for the satellite your dish is installed for. (Please also refer to the "Advanced Users" and "Trouble Shooting" section to check that your LNB settings are correct).

### Manual Entry (see also "Advanced User Guide" ):

(See the "Advanced User Guide" section for more information on manual entry and other tuning options other than Auto set-up.)

# Downloading Channels:

With a "Signal Found" message displayed the signal meters in the Channel Tuning Menu, and depending on whether you have selected a Satellite or Bouquet search.

Press the OK key to begin auto search (Satellite, Network or Bouquet).

Astra 19.2E			
ΓV channels	89	Radio channels	17
Sky 1 CNN NBC Movies 1 Sky news		BBC1 Virgin Radio ITN	

The AUTO CHANNEL SEARCH screen will now be displayed:

Please wait for the receiver to process all the channels - this may take a few minutes. The time required to tune in all the channels on the selected satellite depends on the number of channels available. You may press the ESC key to stop auto tuning anytime.

All the channels found (TV and Radio) will be displayed in the two separate boxes provided in the "Auto Channel Search" menu. Once all the channels are found, the "Finished" message will be displayed at the bottom of the menu indicating that the process has finished.

#### Now press the OK key to store the new channels.

You should now be able to view the first channel found by your receiver. The channel number, channel information and the clock will be displayed at the top of the screen for a few seconds. You may recall this information banner by pressing the INFO key on your handset.

#### Note: Some channels are scrambled - only channel information will be displayed.

You may now either go and view your downloaded channels or continue to download channels from another bouquet or satellite.

# Viewing your channels:

There are several ways to access the stored channels:

Using the UP/DOWN keys on the remote handset to access the channels sequentially.

Using the numeric keys (0-9) by typing the channel number to access the channels directly.

Using the TV key on your handset to display the TV channel list. Use the UP/DOWN keys to move the cursor to highlight the desired channel, then press OK to view that channel. You may also use the LEFT/RIGHT keys to skip to the next or previous page of the channel list for quicker scrolling.

 $\gtrsim$  Using the "Favourite Channels List" - You may add all your favourite TV and Radio channels into the "Favourite Channels List". Please see next section on instructions for using and editing favourite channels.

### Multi-satellite:

As you download channels from different satellites, your digital satellite receiver will store in dedicated satellite groups. For more details please refer to the Advanced User Guide.

#### List by satellite:

To access your channels, press the TV (or Radio) key:

To access the list of channels on a different satellite, press F1 or F2 keys. Within each list you may use the Up/Down, Left/Right keys to highlight the required channel and press OK to select it.



#### List in Alphabetical order:

Alternatively, from View mode you can list all the stored channels in alphabetical order by pressing TV (or Radio) twice in succession.

Use the Up/Down, Left/Right keys to highlight the channels and press OK to select it. In alpha mode, you can also use the F1/F2 keys to skip to the next letter to save time.

Canal +11 Canal +2 CNBC CNN Fashion	TV14 TV17 TV22 TV18 TV35
Astra	19.2E

Note: At any time if you wish to return to your original cursor position, simply press the HELP key on your remote.

# Favourite Channels

Before you can use the "Favourite Channels List", you must first add your favourite channels into the favourites list. Please refer to the instructions below:

**1.** In view mode press the TV button to display the TV channel list.

2. You will now see the TV listing with your current channel highlighted.

3. Press the FAVOURITES key (heart shape) to add a favourite icon next to the channel name. This channel will be added to the "Favourites List". To add more channels to your "Favourites List" move the cursor to highlight another channel and press

the FAVOURITES key. (f you press the FAVOURITES key again it will remove the favourite icon). 4. Press the OK key to store the favourite settings.

In view mode press the FAVOURITES key to display the "Favourite Channel List".

To view your favourite channel, highlight it and press OK.

# Electronic programme guide (EPG):

This receiver is equipped with a unique dual EPG system which gives you two easy ways to view the programme information (what s on now and what s on next)! When transmitted by the broadcaster, the EPG system can display a variety of programme information ranging from start and end times of a programme to additional information about the programme itself. You can easily select and view a programme on the EPG by highlighting it and pressing OK.

You can also choose between a FULL or CONDENSED version of the EPG, using the "Preferences" section under the Installation Menu:

TV Guide (Curren	
CNN International 12:30 – 13:00	Regional financial report
Eurosport 12:00 – 14:00	CART Indy Car series 8 <sup>h</sup> Round Detroit GP
Sci-fi Channel 12:30 – 13:00	Wonder Woman
NBC Europe 12:30 – 12:45	No Info.
Press EPG	key for current/next prog. Info.

Press EPG key for current/next prog. Info. Use INFO key for more information

TV Guide (Current Prog. Info.)			
	Channel Time:	12:35	Scheduled
1.	CNN International	12:30 – 13	3:00
2.	Eurosport	12:00 - 14	1:00
3.	Sci-fi Channel	12:30 - 13	3:00
4.	NBC Europe	12:30 - 12	2:45
5.	Canal+ Swe	12:30 - 13	3:45
Regional financial report			

Select Menu Language

Default Audio Language

Menu Transparency

**EPG** Type

Press EPG key for current/next prog. Info. Use INFO key for more information

Full EPG

Condensed EPG

Canal +11 Canal +2 CNBC CNN Fashion K1 K2 K3	TV14 TV17 TV17 TV18 TV18 TV35 TV57 TV50 TV54
Astra	19.2E

English Full

ena

1 Discovery

# Selecting different audio channels:

In digital satellite broadcasts, multiple audio languages can be simultaneously transmitted by the programme provider.

#### Default audio setting:

The user can first select a default audio language via the "Preferences" menu for the receiver. Once the default audio language has been stored, all newly found TV/Radio channels will then be stored with the selected default audio language.

#### Multi-Channel Audio:

The broadcasters may transmit more than one language for any channel. By pressing the "LANG" key on the handset, the user can quickly find out what other languages are available for that channel. If the left side column of the Audio Control menu shows a selection of different languages, the user can select and store a new default language for that channel only - for that channel the receiver will always return to the newly stored default language.

Sometimes two different languages are broadcasted with one language on the Left Audio Channel (L) and a different language on the Right Audio Channel (R). When this is available, the "Audio Channel" column of the "Audio Control" menu will display the available audio channels and the user can then select either channel L or R for the desired language. Otherwise the default L+R setting would have the two languages" mixed' together and they will be heard at the same time.

From this menu, the left column indicates the default languages available and the right column indicates the available audio sub-channels. The User may then move the cursor to the L or R sub-channel and listen to decide whether the required language is available.



#### Notes:

The left column is the default language setting and this option is storable. If the user changes the default language to another language, any new programmes which do not support the new default language may become silent. When this happens, the receiver will display the Missing Audio icon on the Information Banner, you can press the LANG key to select a different default language.

Missing Audio icon



Many broadcasters transmit multiple languages and programmes on a number of audio sub-channels. With this menu the user can listen to any of the sub-channels by moving the cursor to highlight them when available. The L and R audio sub-channels can vary from programme to programme so this is not stored and will revert to L+R (Stereo) when you change channel.

# Additional Information:

When viewing a programme, pressing the info key will display the information banner.

¢.		
™123 ■ Δ п	Movie Chaenel 13:00 - 14:30 Midnight express	13,06 13:15
<mark>∼ ¤ ?</mark> ≧	SAMSUNG	Signal

#### Note:

If the receiver was previously working on a channel and the" No Signal' icon appears, you may have one of the following problems:

Signal degraded heavily by poor weather Channel no longer broadcasting and no carrier was detected. Dish not aligned to the correct satellite LNB power switched off in the menu Faulty cable or LNB.



#### The Signal and Data level meter:

Press the Signal key during view mode to display the signal and data level for the current channel. Use this feature to assist dish alignment or fault finding should there be a reception problem.

#### **Diagnostic Information:**

For more information on the receiving signal. press the INFO key to display the diagnostic Screen:

The diagnostic screen displays detailed broadcast information in real time. Press INFO key again to return to the signal meters or ESC to return to Picture.



	orgital
Video	Data
Pic. Size:	544x576
Frames/Sec:	25.00
Asp. Ratio:	4:3
Bits/Sec:	15000000
Audi	0
Channel:	Stereo
Emphasis:	Off
Sample Rate:	48.00kHz

#### Memory Status:

At any time you can check the memory status on you receiver. The indicator shows the amount of receiver memory used by the stored channels.

#### Press:

Menu, Channel Setup, Memory Status :

All channels are stored in memory		
Memory Used		

# Parental Control:

To restrict unauthorised access to your receiver, two types of parental lock are provided:

#### Channel Lock:

This provides channel "lock out" facility to restrict the access of adult programme material.

#### Menu Lock:

This will lock out the access of both the Channel Tuning and Installation menus from unauthorised users. This will reinforce the Channel Lock as it also prevents other users from re-tuning channels that are known to contain adult material.

To access the Parental Control menu: **Press Menu, Parental Lock, OK.** 

After the correct PIN (Personal Identification Number) has been entered, the following menu will be displayed: <u>The default PIN is 0000. If you change your PIN, please</u> remember to keep it in a safe place.

#### Channel Lock:

This allows all channel locks to be either enabled or disabled all at once. First use the Lock/Unlock option to tag the individual channels to be locked, then switch the Channel Lock option ON or OFF.

#### Menu Lock:

This option toggles the menu lock ON or OFF. When menu lock is ON, you cannot access either Channel Set-up or Installation menus without entering a PIN.

#### Note:

Once the correct PIN has been entered to temporarily disable a lock, this will remain "unlocked' until the receiver has been switched to standby mode.

#### Lock/Unlock Channels:

Highlight this option and press OK to display the Channel Lock menu:-

Use UP/DOWN, LEFT/RIGHT to select the channels you wish to lock. press F2 to turn the LOCK tag ON and OFF.

Once you have tagged all the channels to be locked, press ESC to return to the Parental Control menu and make sure both Channel Lock and Menu Lock are switched to ON.

Press ESC twice to return to viewing mode and switch the receiver to Stand-by and back to ON again.

Now go to any Locked Channel (e.g. TNT) and you will see that this is locked.

To Unlock, press F2 and enter the PIN number and press OK.



OFF

OFF

Canal +11 Canal+2	TV14 TV17	19.2E 19.2E	
	TV22	19.2E	8
Fashion	TV18 TV35	19.2E 19.2E	
K1	TV57	19.2E	
K2	TV60	19.2E	
К3	TV54	19.2E	
Astra			
F2 to Lock	Unlock		

IV 124	Canar + CHANNEL LOCKED, F2 TO D	19.2E DISABLE LOCK
SAMSUNG		Signa I

Channel Lock

Menu Lock

Enter Parental Lock PIN :

P Lock

# Changing the PIN:

The factory default PIN is set to: 0000. At any time the user may change this PIN code by accessing the "Change PIN" menu:



To change the PIN code, enter in the new PIN into the New PIN box and re-enter the same PIN again in the Verify Box to confirm.

If the two PINs are not identical, the change will be aborted and the user will be asked to either reenter the new PIN or press ESC to abort the PIN change. If the PIN is accepted this will now be your new PIN.

#### Don't forget your PIN number!

Please write down your PIN code below and keep in a safe place. If you have forgotten your PIN code, please call an Authorised Service Agent.

Factory PIN Code:

0000

New PIN Code:

Please keep this section or this manual in a safe place.

# Advanced users guide:

#### Tuning to different channel frequencies:

If the satellite you desire is not in the Preset listing, or you want to tune the receiver to a different set of channels, please follow the instructions below:

#### To access the tuning menu, press the Menu key:

Move the cursor to Channel Setup and press OK. Press OK on Tuning to access the Tuning Menu Press F1 to enter the Manual Tuning Menu.

By referring to your channel listings, enter the Frequency, Symbol Rate (use 0-9 keys), Polarity and FEC (Use LEFT/RIGHT keys) in the appropriate boxes for the channels you wish to tune to.

**Note:** If you are using more than one LNB, be sure to select the correct LNB (A, B,C or D) for your tuning parameters. You can change your LNB settings by highlighting the LNB settings button and pressing OK (see page 22).

You need to press OK to update the entered parameters and thereceiver will try to tune to the new settings.

If the message "Signal Found" is displayed and both the Signal and Data bar graphs are GREEN, you may now select a tuning method.

If the message "No Signal' is shown, please check that your tuning parameters are correct and amend if necessary.

Check you LNB settings are correct (you can access the LNB set-up menu by highlighting the LNB Settings button and press OK; see page 22 for LNB set-up information). If your tuning and LNB settings are correct, your dish may not be adequate to receive the signal or out of alignment with the satellite.





Manual Tuning Menu

Provided you are receiving a good Signal and Data, you may now proceed with one of the three download methods: Network, Bouquet, or Manual. You may highlight the FTA box and change the option to "on" to download Free-to-Air channels.

# **Tuning Modes:**

#### Auto Tuning

From the select frequencies, the receiver will automatically search for all other frequencies within the tuning range and downloads them automatically into the receiver. Once the channels have been downloaded, all the TV and Radio channels will be displayed separately allowing the user to inspect them and decide whether they are to be stored or aborted. This option is not available in Manual tuning mode (F1).

#### **Network and Bouquet Tuning**

Within a digital broadcast transmission, many other network frequencies are provided to guide the receiver to tune to other Networks. Network tuning enables the receiver to download other channels from the same network. Use Bouquet tuning you only want to download channels from one channel frequency group. Bouquet Tuning is used when only the channels from the desired frequency are to be downloaded.

#### **PID tuning**

Apart from the usual channel parameters (Frequency, Symbol Rate, Polarity and FEC value), the broadcaster must include additional information (known as Packet Identifiers or PIDs) in their transmission to allow autotuning to work properly.

нот віга			
мате			
Ch type	٦V	Audio Video	PID 0000 PID 0000
PIDs in	Hex	Text PCR	PID 0000 PID 0000
Hex/Dec			

In "PID Tuning" you are required to enter the channel name and three other parameters: Video PID, Audio PID, PCR PID and Text PID (optional). These values

can either be in Decimal (ranging from 0 to 9) or Hexadecimal (ranging from 0 to 9 and A to F for each digit).

After selecting from the Preset List, or Manually entering the basic channel parameters (Frequency, Symbol Rate, Polarity and FEC value), move the cursor to highlight the Manual button and press OK to start tuning.

Edit the Channel details by following the steps below :-

- 1. Use the UP, DOWN, LEFT/RIGHT keys, to move the cursor from one field to another.
- 2. Use the LEFT/RIGHT, F1 and F2 keys to enter the channel name.
- 3. Select the channel type whether it is a TV channel or a Radio channel.
- 4. Decide whether you would like to enter the PIDs in decimal or hexadecimal form.
- 5. Use the F1/ F2 and 0-9 keys to enter the PID values.
- 6. When you have finished and are ready to store and display that channel, press OK.

#### Note:

In order for manual tuning to be successful, the PCR PID must be entered. In many cases the PCR PID is not published. Fortunately, in nearly all cases the PCR is the same as the Video PID or the Audio PID or 8190 in decimal or 1FFE in hexadecimal.

The Teletext PID is optional and can be ignored when the value is unknown.

# Setup Satellite:

If your desired satellite position is not on the Preset List, you can manually edit an existing satellite or add a new satellite name to the preset list.

To add a new satellite to your list, you must first enter the channel tuning mode:

#### Press Menu, Channel Setup, OK:

From the Channel tuning menu press F1 to enter manual tuner mode.

You will now see a Setup Satellite button on the right hand side.

Highlight the Setup Satellite button, press OK.

### You will now see the Setup Satellite menu:

In the Setup Satellite menu you may either press F1 to edit the highlighted satellite details, or you may press F2 to add your own satellite to the listing.

# In either case you will then be required to enter the new parameters in the boxes provided:

Satellite: Enter the satellite name Position: Enter the satellite position in degrees, then the decimal place and either E or W (East or West).

# Press OK when finished. Your new satellite will be added to the Manual list on the screen.

Highlight the new satellite in the list and press OK to return to the Channel tuning menu. You will find your new satellite displayed in the Satellite box.

Enter the transponder parameters and check for signal availability.

Commence downloading your new channels.

Now any <u>manual channels</u> downloaded under these parameters will be listed under the satellite name you have entered.

#### Note:

In the Manual Tuning Menu, you can use the F2 key to toggle between the receiver's preset satellite list and the manually added satellite list.







# Editing channels:

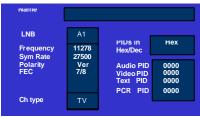
Should you wish to modify or view details of a particular channel, you may do so by using the Edit Channel Details menu.

Please note that apart from editing the channel name, editing any of the channel parameters will cause the channel to either be lost or changed (different audio/video). This menu is best used for checking channel parameters downloaded from the broadcaster.

#### To access the Edit Channel Details menu:

Press the MENU key, select Channel Setup, then select Edit Channel Details and press OK.

By using the UP/DOWN, LEFT/RIGHT, F1/F2 and the OK/ESC keys, you may move to any field to edit the associated parameters (the operation is similar to using the manual tuning menu). Once all changes have been made, Press OK to retune to these new parameters.



# Note: It is important to identify whether the channel is TV or Radio so that the channel is stored under the appropriate channel list (TV or Radio List).

## Arrange:

The channel sort facility allows you to "drag and drop" channels to your preferred location. Within the "Channel Setup" menu, you will find the Sort Channels option:

Move the cursor to highlight "Arrange" in the Channel Setup menu and press OK.

Use the TV or Radio keys to select the listing you wish to sort.

Use the UP/DOWN/LEFT/RIGHT keys to move the cursor, highlight the channel you wish to move and press OK to select It. The selected channel now will move with the cursor.

Use the UP/DOWN/LEFT/RIGHT keys to move the channel to the new location.

Press OK to "drop" the selected channel into the new position or ESC to cancel the change.

Repeat for all other channels or press ESC again to store the new settings and Return to the previous menu.



# Sort Free to Air Channels

This function automatically separates the scrambled channels from the free-to-air channels by actually checking each channel for video and audio. The user first decides whether to sort TV or Radio channels (or both at the same time), and then selects whether to delete the scrambled channels or simply move them to the end of the channel list.

Depending on the number of channels to be sorted, the time taken to complete the process will vary and the progress bar will indicate progress in percentage.

To change the mode of operation, use the Left/Right or OK key. Use F1 key to start the sorting progress and ESC to abort.

#### The Sort Unscrambled Channels Menu:

#### Mode:

Select either to delete all scrambled channels or move all scrambled channels to the end of the channel list.

#### Scope:

Select sort TV channels only, Radio channels only, or sort both at the same time.

#### Channel:

Displays the current channel being checked.

#### Progress:

Displays the sorting progress in percentage.



#### Available/Unavailable:

Displays a visual ratio between free channels to scrambled channels.

#### N.B.: Please note that channels with no signal lock will not be moved or deleted.

# **Deleting Channels:**

You can choose one of the two following methods:-

Delete Channels - you may select individual channels for deletion. Clear All Channel Info - you may delete all channels in one operation.

#### 1. Deleting Channels:

Move the cursor to highlight " Delete Channels" in the Channel Setup menu and press OK.

By default TV channels are listed, press the RADIO key to access the Radio list.

Use the UP/DOWN/LEFT/RIGHT keys to move the cursor, highlight the channels you wish to delete and press F1 to tag the channels to be deleted. Notice that the tagged channels now have an "X' tag next to them (Pressing F1 will remove the tag).

If you wish to tag all the channels, press F2. (Pressing F2 again will remove all the tags)

If you wish to preview the channel before tagging, press Info. You can tag channels while in preview mode - changing channels with UP/DOWN keys, and tagging them with F1. Press the Info key to return to the "Delete Channels" menu.

Once you have tagged all the unwanted channels press OK to confirm.

Press F2 key to confirm deletion or press any Other key to return to the Delete Channels menu.



IV 124	canai + ESC – exit	Delete	19.2E
SAMSUNG			Signal

#### 2. Clear All Channel Info:

Only use this option if you would like to DELETE ALL CHANNELS stored in your receiver. All stored channels in the receiver will be erased at the end of the following procedure:

From the Main Menu select Channel Setup and Delete.

You will be prompted with a warning screen:

Follow the on-screen messages to proceed in deleting all your channels or to abort.

Finally, press OK to confirm deletion of all channel information.

#### Note:

The above procedure will delete all stored channels in the receiver's memory. Any modifications made to the receiver's set-up (LNB settings, Parental Lock etc.) will NOT be affected. For instructions on how to reset the receiver to factory condition please refer to the Reset to factory defaults section in this manual.



# Installation:

### LNB:

The installation menu provides access to LNB settings and features. These can expand the receivers capabilities as well as customising the receiver to your preference.

#### LNB < A1 > Univ 09750 10600 Help INR Messages Low High DiSEaC A A Off Off Tone 22k 12v Save On LNB Power DiSEaC 1.0 DiSEaC 1.0 Repeats Tone 0 OFF OFF

#### Press Menu and select Installation to access the Installation menu:

The default LNB setting is as per the diagram above.

#### LNB Power:

This toggles the LNB power supply on and off. This option should be set to ON. With the LNB power switched off, all control signals for LNB, switches and DiSEqC will also be disabled.

#### LNB A1 to D4:

Up to sixteen universal LNBs can be conntected to your digital receiver. For each LNB (A1 to D4) you may specify the type and control method of the LNB.

#### L.O. Freq:

Enter the Local Oscillator Frequency in MHz of your LNB here. For LNBs with two L.O. frequencies, enter the Low Band L.O. frequency in the Low column and the High Band L.O. frequency in the High Column. (e.g. For a Universal LNB, the Low Band L.O. frequency is 9750 MHz and the High Band L.O. Frequency is 10600 MHz).

#### Tone:

Your digital receiver is equipped with switch controls 12V, 22kHz tone, as well as DiSEqC 1.0 **DiSEqC:** 

With the DiSEqC options switched on you can select between LNBs from A to D.

#### Note:

You may use these controls independently to select different LNBs, and in addition you can use either in conjunction with DiSEqC switchs to increase the number of LNBs used. Up to maximum of sixteen LNBs can be used.

Note: Universal LNBs uses 22kHz to switch between Low Band and High Band and therefore the 22kHz control column is automatically disabled when Univ is selected in the LNB column.

#### Save:

Highlight this button and press OK to store any changes made to this menu. If you exit by pressig ESC your changes will not be saved.

#### TV/VCR settings:

The TV/VCR menu contains various options that allow you to configure the receiver to suit your system:

Press Menu, select Installation to access the TV/VCR Menu:



The following options are available:

#### TV Type:

Select between a standard aspect ratio TV (4:3) or Wide-screen (16:9) TV. 16:9 mode is only active when a programme is transmitted in 16:9 format. With a modern 16:9 TV, the switch to 16:9 mode is automatic if connected via a full SCART. With a modern 4:3 TV, 16:9 mode will produce a "Letter Box" format if connected via a full SCART.

#### **UHF Channel:**

Use this option to change the TV UHF modulator output channel. The default channel is CH38. If this is already occupied by a local TV channel, VCR or you are experiencing picture interference, use this option to re-tune your satellite receiver to a different UHF channel. Remember to re-tune your TV and VCR to the new channel.

#### Enable TV SCART RGB:

When OFF, the TV SCART outputs composite video signal. If you have a RGB compatible TV, switch this option to ON to enjoy better picture quality.

#### Enable TV SCART S-Video:

Select this option only if your TV is S-Video compatible. Note: 1. If your TV is not compatible, a Black and White picture will result. 2. This option is NOT available if TV SCART is set to RGB.

#### Enable VCR SCART S-Video:

Select this option only if your VCR is S-Video compatible.
Note: 1. If your VCR is not compatible, a Black and White picture will result.
2. This option is NOT available if TV SCART is set to RGB.

#### Preferences:

This menu allows you to customise the receiver to suit your individual needs.

To access the Preferences menu: Press Menu, select system.

#### Select Menu Language:

You may change the default menu language. The number of languages available depends on the receiver's software version.

#### EPG Type:

You can change the Electronic Programme Guide format between FULL EPG or CONDENSED EPG. (See EPG section under Accessing Channels).

# Select Menu Language English EPG Type Full Default Audio Language eng Menu Transparency

#### Default Audio Language:

You can select or change the default language for your programmes with this menu. When tuning for new channels, the receiver will automatically search for the default language if available (See the "Selecting Different Audio Channels" section).

#### Menu Transparency:

Use this feature to adjust the transparency of the receiver's menus.

#### Set local time:

The Digital Satellite receiver is equipped with an internal clock. The time is displayed on the channel information banner and on the EPG so that you will never miss your favourite programme, wherever the programmes are transmitted from!

#### Offset from GMT:

Enter the time difference between your local time and GMT in this box.

#### Local Time:

Some broadcasters may not transmit the time together with their programme content. In this case you may need to enter the local time of your country here (Note: This is a 24hr clock).



#### System Information:

The system information option on the Installation menu above displays software version numbers. This can be used to identify whether there is a newer version of software available.

As digital receiver technology is constantly improving, newer and better versions of software will become available in future to further enhance your receiver. New software updates will be available to your dealer and On the Internet.

Application	SID x.x x.xx.xx
dd/mm/ yyyy Boot	2.0
F P	1.x

# Reset to factory defaults:

The Reset To Factory Defaults option is provided to enable the user to completely reset the receiver. Unlike the Clear All Channel Information option which allows the user to clear only the channel list, the Reset To Factory Defaults option will clear all changes made by the user, including Installation, Channel Setup and Parental Control changes.

Reset To Factory Defaults menu:

After pressing OK the following menu will be displayed:

This process has been designed to be lengthy to minimise accidental resetting of the receiver to it's the default condition.

Press F2 to proceed to the next step, any other key will return you back to the installation menu.

You are asked to confirm this once more. Pressing OK at this point will enable the "Reset to Factory Default" function.

Pressing any other key will return you back to the installation menu.

Beyond this point, all stored settings (including LNB, TV/VCR configurations, parental/installation access control, and preferences) will be lost.

This final screen confirms the receiver has been reset to factory defaults.

#### Warning

This will Reset All settings to default values

Press F2 to continue, any other key to exit

Stored settings, including LNB and TV/VCR configurations, parental/installation access control and preferences

#### Warning

Are you sure you want to continue? All stored settings will be reset to default values

> Press OK to continue any other key to exit

Stored settings, including LNB and TV/VCR configurations, parental/installation access control and preferences

#### Warning

Stored settings reset to default values

Press any key to exit

# Trouble shooting:

If you suspect there is a fault with your receiver, please check the following trouble shooting guide before calling an authorised service agent.

# Warning! Under no circumstances attempt to repair the receiver yourself. Tampering with the receiver may result in fatal electric shock and will invalidate your warranty.

Symptom:	Possible cause:
No receiver display	Check that the receiver is plugged in and there is power at the mains socket.
Receiver is ON, but no picture or sound	Check that your TV is switched on
Receiver is on, no picture or sound except menus	Channel scrambled. Check tuning and set-up Check Signal and Data levels. Dish moved or LNB is faulty.
Interference on picture, sound OK	Local TV interference, tune the output to another channel, or connect to TV via SCART or phonos.
Interference on picture, noisy audio	Press Signal key and check if Signal and Data levels are good enough.
Receiver not responding to remote	Check remote batteries and that the receiver IR sensor is not covered (marked IR on the front panel).

# Analogue option

The digital satellite receiver analogue option is an advanced analogue receiver module specially designed to be used with the digital satellite receiver.

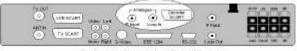
With the capacity for 600 channels, single or twin input Low-Threshold tuner\* (3.5dB max.), dual IF bandwidth tuner\* and high sensitivity PLL audio demodulation circuitry, the analogue option will provide excellent reception capability even under very poor signal conditions. To cope with the many different scrambling methods used by broadcasters, the analogue option is fully PAL, MAC and Canal+ decoder compatible with fully programmable audio and video loop-through. Apart from employing a high sensitivity PLL demodulation circuit, the audio circuitry in this module is also fully featured: Independent Left/Right tuning with 4 selectable audio sub-carrier bandwidths (130, 180, 280, and 500kHz), and 500kHz), and 500kHz), and 500kHz), and 500kHz).

In order to save you time during installation, the unit is pre-programmed with the most popular channels, from the most popular satellites together with automatic video frequency scan, selectable LNB local oscillators setting 22kHz tone and DiSEqC support. The most commonly used audio settings are also pre-stored in the first 25 audio presets (50 in total), with the remainder 25 presets being fully customisable by the user.

\*Optional

### system installation:

In addition to the connectors shown on page 4 in the main manual, you will find extra LNB inputs and a decoder SCART socket used by the analogue module:



Rear Panel of the Digital & Analogue Receiver & Positional

For installations with a single LNB feed, connect the cable from the LNB to the main IF input. Connect the small IF loop cable (supplied) between the Loop Out connector to the Analogue IF Input connector.

For installations with two independent LNB feeds, connect the respective LNB cables to the corresponding LNB IF inputs, the Loop cable will not be required in this case.

### decoder SCART:

Connect your decoder to the DECODER SCART connector via a SCART cable.

Note:

Within the decoder SCART there are two pins (pin 10 = SCL and pin 12 = SDA) reserved for analogue channel data download which your installer may use to download new channel presets from his receiver directly into your receiver. Please refer to your dealer for download information.

# using the analogue option

The built-in analogue option enables you to receive analogue satellite transmission. Your analogue receiver has been pre-programmed with the most popular satellite channels. Refer the Analogue Channel List for full details.

To set up the analogue receiver (assuming your TV has already been tuned to your satellite receiver, otherwise refer to instructions in page 6 of the main manual)

- 1. Unplug the receiver from the mains outlet.
- 2. Connect the supplied RF loop cable between the RF Loop out socket and the Analogue RF IN socket. (Alternatively, you can connect your dish directly to the Analogue IN socket.)
- 3. Re-connect your receiver to the mains outlet and switch your receiver on.
- 4. Follow the instructions on page 6 in the main manual and tune your TV to the receiver.
- 5. Press the Analogue button to switch to analogue receiver mode.

You should now see a picture or a blue screen with a channel number.

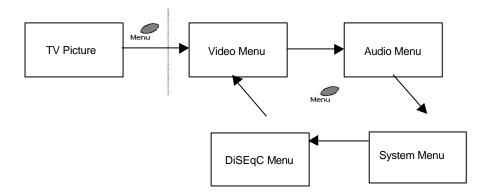
INDE	x	
001	ALMATV	ARAB2A/3A
002	ABUTV	ARAB2A/3A
003	KUMAZT	ARAB2A/3A
004	ALGTV	ARAB2A/3A
005	IRAQ	ARAB2A/3A
006	QATTV	ARAB2A/3A
( <del>← →</del> ↓↑ , OK , ESC )		

Refer to your channel list and enter the channel number for the satellite your dish is set up to receive. If no picture is seen, please your analogue option settings as described below:

#### on-screen menu system:

Pressing the Menu key will display the Video, Audio and System menus one after another.

Press ESC at any time to exit the menu system.



#### 1. Video Menu:

#### CH Name:

Displays channel name. To change the channel name, move the cursor by using Left/Right key. Then you can change the channel name by using Up/Down key.

#### SAT:

Displays the satellite group the current channel belongs to. You can change the channel/satellite assignment by using the Left/Right keys. Frequency:

Displays the channel frequency. You can change the frequency by using the Left/Right keys or 0-9 keys for direct entry. Press F1 key and hold the Left or Right key for 3 seconds to start auto video frequency scan.

#### Polarity:

The polarity setting.

#### Skew:

Optional polariser control (up to 16 different configurations). Note: Only on models fitted with the polariser control option Bandwidth (option):

The selected IF bandwidth (default 27MHz).

#### Deviation (1-4):

Controls the video level (brightness) in four steps.

#### LT Level (option):

Where applicable, you can adjust the threshold (sensitivity) of your receiver under weak signal conditions (32 steps).

#### Note:

Use OK key to store changes and ESC to exit menus. You can use the auxiliary Left/Right keys to change channels whilst in menu mode allowing quick changes to the settings of other channels

#### 2. Audio Menu:

#### Audio No:

Numbers 1-25 are factory pre-set audio sub-carrier frequencies and 26-50 are user definable pre-sets. For complete audio preset list, refer to the table in appendix 2.

#### Freq-L:

Displays the Left channel audio sub-carrier frequency. Frea-R:

Displays the Right channel audio sub-carrier frequency. Mode.

Selects between STEREO and MONO audio format.

#### Bandwidth:

Displays the selected IF bandwidth setting (selectable between 130/180/280/500KHz).

#### De emphasis:

Displays the selected de-emphasis (50uS/75uS/J17/DNR)

#### Note:

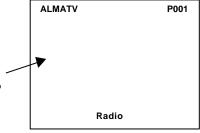
Only audio numbers 26-50 are user configurable.

#### Note: Radio Kev

Radio channels are usually transmitted alongside video channels, use the RADIO key to enable the blue screen. Should you wish to block out the pictures press STORE to store this function to the selected channel

VIDEO	P001	
CH NAME	ALMATV	
SAT01	ARABSA 2A,3A	
FREQUENCY	11.823MHZ	
POLARITY	VER1	
SKEW	-45	
BANDWIDTH	27MHZ	
DEVIATION	4	
LT LEVEL	01	
UP/DN, LR, 0-9, OK, ESC, MEN		

AUDIO	P001
FREQ-L FREQ-R MODE BANDWIDTH	6.60MHZ 6.60MHZ MONO 280KHZ
DEMEMPHASIS 50US	50US
UP/DN, LR, 0-9, C	OK, ESC, MEN
	<b>B</b> 004



# 3. System Menu

#### LNB INPUT:

Select upto eight LNB settings for your analogue system, A1 to A4, B1 to B4. You can assign different LNB parameters (local oscillator frequency, LNB power, 22KHz, 12V and DiSEqC control) for each LNB setting.

For the selected input set the following:

#### LOCAL OSC:

Select the appropriate LNB local oscillator frequency.

You can select from 5.150, 9.750, 10.000, 10.750, 11.000, 11.475, Universal Low Band, Universal High Band, and a variable setting (between 9.100 to 14.000GHz).

#### LNB PWR:

Select the LNB power supply. You can select from 14V, 18V and V/H for Marconi type LNBs including Universal LNBs.

#### 22KHz:

You can select 22KHz ON/OFF to control an external tone switch. Note: When using a Universal LNB, 22KHz will be used to switch the LNB and therefore 22KHz will be set to AUTO .

#### 0/12V:

To control an additional 12 volt accessory switch.

#### Decoder:

The decoder status; from here you can select the type of decoder de-emphasis required for your decoder. (PAL.MAC.CLAMP.CANAL+)

#### COPY:

To copy the settings from exsisting channel's setting to new Channel's one directly.

#### 4. DiSEqC Menu:

#### SAT POSITION:

Use to select between position A or B of a DiSEqC switch.

#### SWITCH OPTION:

Use to select between option A or B of a DiSEqC switch. Note:

The DiSEqC function is enabled in the Installation menu. **DiSEqC:** 

Turns the DiSEqC control function ON or OFF. Switch this option ON when you are using DiSEqC controlled equipment.

#### EPG Key:

Pressing the EPG key in analogue mode will display the Channel Lock Menu.

#### Menu Lock:

You can set the menu lock NO and YES with this option. With menu lock YES, the user must enter a password before any of the programming menus are displayed.

#### Channel Lock:

To lock the current channel from unauthorised access, enter the password to switch the channel lock from NOto YES.

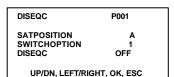
(The factory password is 0000. To change the password, see the Installation menu).

Note: the Channel lock is ineffective unless the receiver's menus are also locked. This prevents the unauthorised user from retuning the restricted channel onto a different channel. To enable menu lock, see the Installation menu.

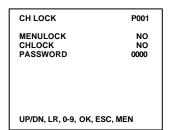
#### Password:

Enter your password for your channel and menu locks. The default password is 0000.

SYSTEM	P001
LNB INPUT	A1
LOCAL OSC.	UNI-HI
LNB PWR	14V
22KHz	OFF
0/12V	0V
DECODER	OFF
COPY	001->001
UP/DN. LR. 0-9. OK. ESC. MEN	







#### Favourite Key:

Press the favourite key to display the Favourite Menu (Up to 40 favourite channels can be stored):

By using the Up/Down, Left/Right keys to move the cursor to select a favourite channel number.

Now, either press OK to view the selected favourite channel, or press the favourite key again to store the current channel as a favourite channel.

Press ESC to exit from the favourite menu.

#### Other keys:

Use this key to initialise video frequency SCAN mode. When this key is pressed you will see a flashing frequency. Use the analogue Left/Right keys in view mode or the Left/Right cursor key in program mode to start scanning up or down the frequency range.



- 1. In view mode:
- 2. Press F1 for SCAN mode.
- 3. Use the above Left/Right keys for SCAN direction.

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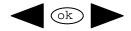
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1. In menu mode:

FAVOURTITE CHANNEL

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- 2. Move cursor to Frequency.
- Press F1 for SCAN mode
   Use the above Left/Right keep
  - Use the above Left/Right keys for SCAN direction.

#### Note:

All new channels found by SCAN in view mode cannot be stored. Yc

#### F2:

You can use this key to enable or disable the BLUE background screen to aid tuning. Under poor signal conditions the BLUE background will automatically come on to blank the screen, you may then use the F2 key to disable the BLUE screen.

#### Lang:

Depending on your version of software, you can choose from f ivedifferent on-screen languages.

#### Analogue Left/Right:

In menu mode, you can change channels sequentially with the Analogue Left/Right keys. This is useful when you need to change similar programming parameters for a range of channels without the need to exit from menu mode.

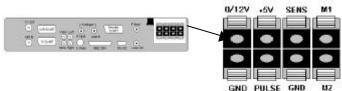
#### Analogue:

You can use the Analogue key at any time to toggle between the analogue and digital receiving mode of you receiver.

#### positioner model:

For models fitted with the integrated positioner module, refer to the following instructions for positioner setup (assuming your dish has already been correctly setup):

At the back of the receiver you will find eight connectors provided for the dish actuator -



#### M1, M2, SENS, GND:

From your actuator motor you will find four wires – two thick and two thin wires. Connect the two thick motor wires to M1 and M2, the two thin sensor wires to SENS and GND.

#### 0/12V, GND:

Where applicable, connect a 0/12V LNB switch to these two connectors.

#### +5V, PULSE, GND:

Where applicable, connect a mechanical polariser to these three connectors.

Positioner setup:

With the receiver in analogue mode, press the INFO/POS key to enter the positioner menu:

#### SAT No:

Select between 1-64 satellite positions. SAT Name:

Displays the satellite name. You may move the cursor into the name field to edit the satellite name.

SAT STORED:

When SAT STORED = NO, all channels with the same satellite name will be assigned to this satellite position. DISH POSITION:

Displays the current dish position.

EAST LIMIT:

You may store the current dish position as the East limits by moving the cursor here and press STORE. WEST LIMIT:

You may store the current dish position as the West limits by moving the cursor here and press STORE. REALIGN:

If for any reason your dish is out of alignment with the satellites, use this function to realign all satellites in one operation instead of realigning the satellites individually.

- 1. First select a satellite you wish to realign as reference.
- 2. Move the cursor to DISH POSITION
- 3. Move the dish East or West to relocate the reference satellite.
- 4. Move the cursor to REALIGN and press STORE
- 5. Now all other satellite positions will be realigned with respect to the reference satellite.

#### SAT POSITION

SAT NO	01
SAT NAME	ARAB 2A,3A
SAT STORED	NO
DISH POSI ()	5000
EAST LIMIT	0001
WEST LIMIT	9999
REALIGN	01
CLEAR LIMITS	

UP/DN, LEFT/RIGHT, OK, ESC

### You may now begin to setup thepositioner:

Confirm the dish actuator is correctly installed by moving the cursor to DISH POS and then press the Left/Right keys to move the dish east and west (usually Left key for East and Right key for West). You should see the counter counting up and down (If your dish moves in opposite direction to the East/West keys, reverse the wires connected to M1 and M2).

If the dish only moves a little and DISH POS counter does not change its values, an ERROR message will be displayed. In this case check that the two thin wires from the dish motor are correctly connected to Pulse and GND. If you are experiencing problems after checking all connections to both the receiver and the dish actuator, consult your installer.

With the dish motor responding correctly, set the East and West limits to prevent over-driving your positioner motor:

- 1. Move the cursor to either East or West direction until the ERROR message appears.
- 2. Back up the dish by about 10 counts.
- 3. Move the cursor to either East or West Limit and press store to store the East or West Limit.
- 4. Repeat the same for the other limit.
- 5. Move the dish towards each limit in turn to ensure that the dish automatically stops when the corresponding limits have been reached.
- 6. Press Esc to return to view mode.

#### Locating satellites:

- 1. By referring to the channel list at the end of this manual, enter the channel number assigned to a satellite you wish to locate.
- 2. Press the ESC/POS key to enter the positioner menu.
- 3. Move the dish until the correct channel is found.
- 4. Move the cursor to SAT STORED and change the setting from NO to YES and press store.
- 5. All the channels assigned to that SATELLITE NAME will now be stored to that dish position.
- 6. Repeat the steps above to locate other satellites of your choice.

#### New satellites:

For satellites not listed to the pre-programmed list, you may either use the SPARE channels provided in the channel listing or rename an unused satellite to free the channels previously assigned to that satellite.

#### To add more channels to a satellite channel group:

- 1. Select a spare channel and press MENU to enter the VIDEO menu.
- 2. Use the Left/Right keys to change the satellite name to the appropriate satellite.
- 3. Press STORE to assign that channel to the newly defined satellite position.
- 4. Repeat the above for other satellite/channels.

#### To view the channels:

Enter the channel number in view mode and the dish will automatically move to the corresponding satellite. If you have incorrectly entered a channel number not assigned to any satellites, the message NOT ON SAT will be displayed.

#### To select a satellite directly:

- 1. Press the INDEX/HELP key to display the satellite INDEX menu.
- Press the INDEX/HELP key again to toggle between page 1 and page 2 of the satellite INDEX.
- Move the cursor to the desired satellite name and press OK to move the dish to the selected satellite (If the selected satellite has not been stored, the receiver will not respond).
- To CANCEL the satellite INDEX menu without selecting a satellite, press ESC.

INDE	x	
001	ALMATV	ARAB2A/3A
002	ABUTV	ARAB2A/3A
003	KUMAZT	ARAB2A/3A
004	ALGTV	ARAB2A/3A
005	IRAQ	ARAB2A/3A
006	QATTV	ARAB2A/3A
	(←→↓↑,	OK,ESC)

Example

# SADPCI-202 Channel Listing

СН	SATELLITE	FREQ	POL	BAND	AUDIO	DE-EMP
6.0 E AR	ABSAT 2A/3A					
001 AL	MANAR TV	11.823	V	Ku	6.60	50uS
002 AB	U DHABI TV	11.835	Н	Ku	6.60	50uS
003 KU	WAIT	11.859	v	Ku	6.60	50uS
004 AL	GERIAN TV	11.900	v	Ku	6.60	50uS
005 IRA	Q	11.938	v	Ku	6.60	50uS
006 AN	N	11.977	v	Ku	6.60	50uS
007 QA	TAR TV	12.521	н	Ku	6.60	50uS
008 PS	C	12.536	v	Ku	6.60	50uS
009 JO	RDAN	12.578	v	Ku	6.60	50uS
010 SA	UDI 1	12.661	v	Ku	6.60	50uS
011 IQF	RA	12.685	н	Ku	6.60	50uS
012 JS0		12.700	v	Ku	6.60	50uS
013 SA	UDI CH 2	12.720	Н	Ku	6.60	50uS
014 INN	1	12.735	v	Ku	6.60	50uS
015 IM/	ARAT FM	11.835	н	Ku	7.20	50uS
016 AR	ABIC	11.859	v	Ku	7.20	50uS
017 AR	ABIC CLASSICS	11.859	v	Ku	7.40	50uS
018 FM	99.7	11.859	v	Ku	7.92	DNR
019 RT	A CH 1	11.900	v	Ku	7.02	50uS
020 RT	A CH 2	11.900	v	Ku	7.20	50uS
021 RT	A CH 3	11.900	v	Ku	7.38	50uS
022 EL	BAHDJA	11.900	v	Ku	7.56	DNR
023 AL	IRAQ	11.938	V	Ku	7.02	50uS
024 ISA		11.938	v	Ku	7.20	50uS
025 IRA	Q INT	11.938	v	Ku	7.38	50uS
026 QA	TAR RADIO	12.521	Н	Ku	7.00	50uS
027 RA	dio amman	12.578	v	Ku	7.02	50uS
028 AF	S	12.578	v	Ku	7.38	50uS
029 V.C	).K 1	12.661	v	Ku	7.20	50uS
030 AL	QURAN AL KARIM	12.661	v	Ku	7.92	DNR
031 V.C	).K 1	12.720	н	Ku	7.20	50uS
032 SH	ARJAH TV	3.720	v	С	6.60	50uS
033 LB	C SAT	3.741	Н	С	6.60	50uS
034 ES	C1	3.761	v	С	6.60	50uS
035 AR	Т	3.782	н	С	6.60	50uS
036 NIL	E TV INT	3.802	v	С	6.60	50uS
037 BA	HRAIN TV	3.823	н	С	6.60	50uS
038 CN	N	3.843	v	С	6.65	50uS
039 FU	TURE INT	3.864	н	С	6.60	50uS
040 OR	BIT PROMO	3.884	v	С	6.60	50uS
041 SU	DAN TV	3.905	н	С	6.60	50uS
042 SA	UDI CH 1	3.925	v	С	6.60	50uS
043 TV	5 ORIENT	3.946	н	С	5.80	50uS
044 SA	UDI CH 2	3.968	н	С	6.60	50uS
045 IRA	TES	3.989	н	С	6.60	50uS
046 AB	U DHABI	4.044	v	С	6.60	50uS
047 DU	BAI EDTV	4.060	н	С	6.60	50uS
048 SY	RIA	4.085	v	С	6.60	50uS
049 MB	C	4.102	н	С	6.60	50uS
050 JS0		4.123	v	С	6.60	50uS

# SADPCI-202 Channel Listing

СН	SATELLITE	FREQ	POL	BAND	AUDIO	DE-EMP
051	OMAN TV	4.140	Н	С	6.60	50uS
052	KUWAIT	4.167	V	С	6.60	50uS
053	YEN TV	4.180	н	С	6.60	50uS
054	ART 5	3.782	Н	С	7.02	DNR
055	BAHRAIN	3.823	н	С	7.00	50uS
056	CNN RADIO	3.843	v	С	6.30/6.48	50uS
057	EL SHARQ	3.864	н	С	7.56	DNR
058	OMDURMAN	3.905	Н	С	7.20	DNR
059	V.O.K.1	3.925	v	С	7.20	DNR
060	AL-QURAN	3.925	v	С	7.92	DNR
061	MONTE CARLO	3.946	Н	С	6.20	50uS
062	V.O.K.2	3.968	v	С	7.20	DNR
063	CHANNEL 4	3.989	н	С	7.20	DNR
064	IMARAT	4.044	v	С	7.20	DNR
065	R.DUBAI	4.060	Н	С	7.20	DNR
066	DUBAI FM	4.060	Н	С	7.74	DNR
067	SYRIAN RADIO	4.085	v	С	7.56	DNR
068	MBC FM	4.102	Н	С	7.38/7.56	DNR
069	QATAR RADIO	4.123	v	С	7.00	50uS
070	RADIO OMAN	4.140	н	С	7.20	DNR
071	OMAN FM	4.140	Н	С	7.74	DNR
072	ARABIC	4.167	v	С	5.80	50uS
073	ARABIC CLASSIC	4.167	v	С	7.40	50uS
074	YEMEN RADIO	4.180	н	С	7.20	DNR
075	ADEN RADIO	4.180	Н	С	7.92	DNR
7.0W	NILESAT 101/102	† †		1		1
076	FEED	11.919	н	Ku	6.60	50uS
077	JSC	11.977	v	Ku	6.60	50uS
19.2E	ASTRA 1A~1H	t t				Ì
078	ARTE	10.714	н	Ku	7.02/7.20	DNR
079	CNBC	10.729	v	Ku	7.02/7.20	DNR
080	ANIMAL PLANET	10.744	н	Ku	7.02/7.20	DNR
081	QVC	10.759	v	Ku	7.02/7.20	DNR
082	JSTV	10.773	н	Ku	7.02/7.20	DNR
083	N24	10.803	н	Ku	7.02/7.20	DNR
084	TV TRAVEL	10.818	v	Ku	7.02/7.20	DNR
085	HORIZONS	10.832	Н	Ku	7.02/7.20	DNR
086	B.TV	10.847	v	Ku	7.02/7.20	DNR
087	S.E.S	10.862	н	Ku	7.02/7.20	DNR
088	SWR	10.891	н	Ku	7.02/7.20	DNR
089	нот	10.906	v	Ku	7.02/7.20	DNR
090	CHANNEL 5	10.921	Н	Ku	7.02/7.20	DNR
091	ТМЗ	10.936	V	Ku	7.02/7.20	DNR
092	ZDF	10.964	Н	Ku	7.02/7.20	DNR
093	LIVING	10.979	v	Ku	7.02/7.20	DNR
094	TRAVEL	10.994	Н	Ku	7.02/7.20	DNR
095	PHOENIX	11.009	v	Ku	7.02/7.20	DNR
096	CARTOON	11.023	H	Ku	7.02/7.20	DNR
097	QVC	11.038	V	Ku	7.02/7.20	DNR
098	WDR	11.053	H	Ku	7.02/7.20	DNR
099	FERNSEHEN	11.068	v	Ku	7.02/7.20	DNR

СН	SATELLITE	FREQ	POL	BAND	AUDIO	DE-EMP
100	DISCOVERY	11.082	Н	Ku	7.02/7.20	DNR
101	BRAVO	11.097	v	Ku	7.02/7.20	DNR
102	MDR	11.112	н	Ku	7.02/7.20	DNR
103	VIVA	11.127	v	Ku	7.02/7.20	DNR
104	BAYERISCHES	11.141	Н	Ku	7.02/7.20	DNR
105	NIKELODEON	11.156	v	Ku	7.02/7.20	DNR
106	SKY SPORTS 2	11.171	Н	Ku	7.02/7.20	DNR
107	SWR	11.186	v	Ku	7.02/7.20	DNR
108	RTL 2	11.214	Н	Ku	7.02/7.20	DNR
109	RTL	11.229	v	Ku	7.02/7.20	DNR
110	SHOP AMERICA	11.244	Н	Ku	7.02/7.20	DNR
111	EUROSPORT	11.259	V	Ku	7.02/7.20	DNR
112	VOX	11.273	Н	Ku	7.02/7.20	DNR
113	SAT1	11.288	v	Ku	7.02/7.20	DNR
114	FOX KIDS	11.303	Н	Ku	7.02/7.20	DNR
115	SKY ONE	11.318	V	Ku	7.02/7.20	DNR
116	KABEL 1	11.332	Н	Ku	7.02/7.20	DNR
117	3 SAT	11.347	V	Ku	7.02/7.20	DNR
118	BLOOMBERG	11.364	Н	Ku	7.02/7.20	DNR
119	SKY NEWS	11.377	v	Ku	7.02/7.20	DNR
120	SUPER RTL	11.391	Н	Ku	7.02/7.20	DNR
121	PRO 7	11.406	v	Ku	7.02/7.20	DNR
122	MTV	11.421	Н	Ku	7.02/7.20	DNR
123	SKY MOVIAX	11.436	V	Ku	7.02/7.20	DNR
124	PREMIERE	11.464	н	Ku	7.02/7.20	DNR
125	SKY PRIER	11.479	v	Ku	7.02/7.20	DNR
126	ARD	11.494	Н	Ku	7.02/7.20	DNR
127	SKY SPORTS 1	11.509	v	Ku	7.02/7.20	DNR
128	DSF	11.523	Н	Ku	7.02/7.20	DNR
129	VH-1	11.538	V	Ku	7.02/7.20	DNR
130	UK GOLD	11.553	Н	Ku	7.02/7.20	DNR
131	SCI-FI	11.568	V	Ku	7.02/7.20	DNR
132	N 3	11.582	Н	Ku	7.02/7.20	DNR
133	DISNEY	11.597	v	Ku	7.02/7.20	DNR
134	MTV	11.612	Н	Ku	7.02/7.20	DNR
135	CNN	11.627	V	Ku	7.02/7.20	DNR
136	N-TV	11.641	Н	Ku	7.02/7.20	DNR
137	ORB	11.656	v	Ku	7.02/7.20	DNR
138	PRIVATE BLUE	11.671	Н	Ku	7.02/7.20	DNR
139	BR ALPHA	11.686	v	Ku	7.02/7.20	DNR
140	R EVIVA	10.803	н	Ku	7.38/7.56	DNR
141	DOM RADIO	10.891	н	Ku	7.38/7.56	DNR
142	ERF 1	10.906	v	Ku	7.38	DNR
143	ERF 2	10.906	v	Ku	7.56/7.74	DNR
144	BBC R1	10.979	v	Ku	7.38/7.56	DNR
145	BBC R3	10.979	v	Ku	7.74/7.92	DNR
146	R CAROLINE	10.994	н	Ku	7.38/7.56	DNR
147	EWTN	10.994	н	Ku	7.74/7.92	DNR
148	WDR 5	11.009	v	Ku	7.38/7.56	DNR
149	ERF 1	11.038	v	Ku	7.38	DNR
150	ERF 2	11.038	V	Ku	7.56	DNR

СН	SATELLITE	FREQ	POL	BAND	AUDIO	DE-EMP
151	TWR	11.038	V	Ku	7.74	DNR
152	WDR 2	11.053	н	Ku	7.38/7.56	DNR
153	EINS LIVE	11.053	Н	Ku	7.74/7.92	DNR
154	MDR	11.112	н	Ku	7.38/7.56	DNR
155	IC R1	11.127	v	Ku	7.74	DNR
156	IC R2	11.127	v	Ku	7.92	DNR
157	RFI	11.156	v	Ku	7.38	DNR
158	JAM FM	11.214	Н	Ku	7.38/7.56	DNR
159	DW 1	11.229	v	Ku	7.38/7.56	DNR
160	DW 3	11.229	v	Ku	7.74	DNR
161	DW 4	11.229	v	Ku	7.92	DNR
162	TAMIL	11.244	н	Ku	7.38	DNR
163	ROCK	11.244	н	Ku	7.56	DNR
164	RTL	11.273	Н	Ku	7.38/7.56	DNR
165	KLASSIK	11.273	Н	Ku	7.74/7.92	DNR
166	ICR1	11.288	v	Ku	7.74	DNR
167	IC R 2	11.288	v	Ku	7.92	DNR
168	SKY RADIO	11.218	v	Ku	7.38/7.56	DNR
169	BYERN	11.332	Н	Ku	7.74/7.92	DNR
170	DEUTSCH	11.347	v	Ku	7.38/7.56	DNR
171	VIRGIN	11.377	v	Ku	7.38/7.56	DNR
172	RTL	11.391	н	Ku	7.74/7.92	DNR
173	HOREB	11.406	v	Ku	7.38	DNR
174	SUNSHINE	11.406	v	Ku	7.74/7.92	DNR
175	SBN	11.421	н	Ku	7.38	50uS
176	N-JOY	11.464	Н	Ku	7.38/7.56	DNR
177	SUNRISE	11.479	v	Ku	7.38	DNR
178	TAMIL	11.479	v	Ku	7.56	DNR
179	SWR 3	11.494	Н	Ku	7.38/7.56	DNR
180	100.6	11.523	Н	Ku	7.74/7.92	DNR
181	MELODIE	11.523	Н	Ku	7.38/7.56	DNR
182	WRN 1	11.538	v	Ku	7.38	DNR
183	RTE 1	11.538	v	Ku	7.56	DNR
184	NPR	11.538	v	Ku	7.74	DNR
185	BBCWORLD	11.553	Н	Ku	7.38	DNR
186	BBC R4	11.553	н	Ku	7.56	DNR
187	BBC R2	11.553	н	Ku	7.74	DNR
188	BBC R5	11.553	Н	Ku	7.92	DNR
189	NDR 2	11.582	н	Ku	7.38/7.56	DNR
190	NDR 4	11.582	н	Ku	7.74/7.92	DNR
191	WRN	11.612	н	Ku	7.38	DNR
192	CNN	11.627	v	Ku	7.92	DNR
193	P.O.S	11.641	H	Ku	7.56	DNR
194	DW	11.656	н	Ku	7.38	DNR
195	WBBR	11.671	Н	Ku	7.38	DNR
196	VO	11.671	Н	Ku	7.56	DNR
13.0E	HOT BIRD 1/2/3/4/5					1
197	DUNA TV	10.815	н	Ku	7.02/7.20	DNR
198	MEDYATV	10.853	н	Ku	6.60	50uS
199	ANN	10.949	v	Ku	7.02	DNR
200	TRT-INT	10.974	н Н	Ku	6.65	50uS

СН	2SATELLITE	FREQ	POL	BAND	AUDIO	DE-EMP
201	LA CINQ	11.079	V	Ku	7.02/7.20	DNR
202	BBCWORLD	11.114	V	Ku	7.02/7.20	DNR
203	DEUTSCHE	11.163	V	Ku	7.02/7.20	DNR
204	VIVA 2	11.178	н	Ku	7.02/7.20	DNR
205	TVEINT	11.224	н	Ku	6.60	50uS
206	TV 5 EUROPE	11.322	V	Ku	6.60	50uS
207	TV 4 POL	11.348	н	Ku	6.60	50uS
208	RAI UNO	11.363	v	Ku	7.02/7.20	DNR
209	EUROSOPORT	11.390	н	Ku	6.65	50uS
210	CANAL +	11.408	V	Ku	7.02/7.20	DNR
211	POLSAT	11.431	н	Ku	6.60	50uS
212	RAIDUE	11.446	v	Ku	7.02/7.20	DNR
213	TV POLONIA	11.474	н	Ku	7.02/7.20	DNR
214	RTL 7	11.489	v	Ku	7.02/7.20	DNR
215	CANAL +	11.516	Н	Ku	6.60	50uS
216	RAITRE	11.531	V	Ku	7.02/7.20	DNR
217	123 SAT	11.538	v	Ku	7.02/7.20	DNR
218	TBN EUROPE	11.566	H	Ku	7.02/7.20	DNR
219	69 X TV	11.586	v	Ku	7.02/7.20	DNR
220	RTP INT	11.727	v	Ku	6.60	50uS
221	RADIO DUE	11.746	Ĥ	Ku	7.02	DNR
222	TVEINT	11.785	H	Ku	6.60	50uS
223	M2	12.131	Н	Ku	7.02/7.20	DNR
224	ERT SAT	12.284	Н	Ku	6.65	50uS
225	KOSSUTH	10.815	Н	Ku	6.60	50uS
226	RADIO BU	10.815	V	Ku	7.02/7.20	DNR
227	PETOFIR	10.815	v	Ku	7.02/7.20	DNR
228	MAGYAR R	10.815	Ĥ	Ku	6.60	50uS
229	RADIO SW	10.853	н	Ku	6.65	50uS
230	RCI-RA	10.853	v	Ku	6.60	50Us
231	WRN ISRA	10.853	Ĥ	Ku	6.60	DNR
232	MUSIC	10.949	v	Ku	6.60	DNR
233	TRT FM	10.974	Н	Ku	6.60	DNR
234	VOICE OF	10.974	v	Ku	6.60	50uS
235	VOICE OF	10.974	н	Ku	6.60	DNR
236	BBCWORLD	11.114	V	Ku	6.60	DNR
237	BBCWORLD	11.114	Ĥ	Ku	6.65	50uS
238	JAM FM	11.148	v	Ku	6.65	50uS
239	RADIO ME	11.148	v	Ku	6.65	DNR
240	DEUTSCHE	11.140	н Н	Ku	6.65	50uS
241	DEUTSCHE	11.163	V	Ku	6.65	DNR
242	DEUTSCHE	11.163	v	Ku	7.74	DNR
243	DEUTSCHE	11.163	v	Ku	7.92	DNR
244	RADIO FIN	11.163	v	Ku	8.10/8.28	DNR
244	DEUTSCHE	11.163	v	Ku	8.10/8.28	DNR
245	DEUTSCHE	11.163	v	Ku	8.10/8.28	DNR
240	RNE	11.224	H H	Ku	7.38	50uS
247	REE	11.224		Ku Ku	7.56	DNR
248		11.322	н V	Ku Ku	7.30	DNR
249	FRANCE INF	11.322	v	Ku Ku	7.38	DNR
250	FRANCE C	11.322	V	Ku Ku	7.56	DNR

СН	SATEELLITE	FREQ	POL	BAND	AUDIO	DE-EMP
252	RADIO MC	11.322	V	Ku	7.92	DNR
253	RADIO UNO	11.363	v	Ku	7.38	50uS
254	RADIO TRE	11.363	v	Ku	7.56	DNR
255	R. ITA	11.408	V	Ku	7.38/7.56	DNR
256	R. MANA	11.408	V	Ku	7.74	DNR
257	RMF FM	11.431	Н	Ku	7.02/7.20	DNR
258	RADIO DUE	11.446	V	Ku	7.38	DNR
259	RAI INT	11.446	v	Ku	7.56	DNR
260	GR PARLA	11.446	v	Ku	7.74	DNR
261	POLSKIE	11.474	Н	Ku	7.38	50uS
262	POLSKIE	11.474	Н	Ku	7.56	DNR
263	POLSKIE	11.474	Н	Ku	7.74	DNR
264	R MARYJA	11.474	н	Ku	7.92	DNR
265	R WAWA	11.516	н	Ku	7.38/7.56	DNR
266	RDP INT	11.727	v	Ku	7.02	DNR
267	RDP ANT	11.727	V	Ku	7.20	DNR
268	RDP TIMOR	11.727	v	Ku	7.56	DNR
269	EURO SPOT	11.727	v	Ku	8.10/8.28	DNR
270	RNE	11.785	H	Ku	7.02	DNR
271	RNE	11.785	Н	Ku	7.20	DNR
272	RNE	11.785	Н	Ku	7.38/7.56	DNR
273	RNF	11.785	н	Ku	7.74/7.92	DNR
274	BARTOK R	12.131	н	Ku	7.74/7.92	DNR
30.5E	ARABSAT 2B	12.101		i tu	1.1-4/1.02	Dini
275	RTM 1	3.876	v	C C	6.65	50uS
275	MAURITANIE	3.918	v	c	6.60	50uS
277	ASBU FEEDS	3.968	v	c c	6.60	50uS
278	ASBUFEEDS	3.991	v	c c	6.60	50uS
278	FEED	4.044	v	C C	6.60	50uS
219	FEED	4.044	н	c	6.60	50uS
200	RTD	4.038	V	C C	6.60	50uS
282	FEED	4.080	н	c c	6.60	50uS
283	FEED	4.099	V	c c	6.60	50uS
205	FEED	4.120	н	C C	6.60	50uS
285		4.140	V N	C C	6.60	50uS
205	LIBIAIV	4.107	v	, C	0.00	5003
16E	EUTELASAT 2F3	-				
286	RTM 1	10.972	V	Ku	6.60	50uS
287	HRT CROATIA	10.987	Н	Ku	6.65	50uS
288	AL-JAZEERA CH	11.080	н	Ku	7.02/7.20	DNR
289	ALGERIAN TV	11.095	v	Ku	6.65	50uS
290	NILE TV INT' L	11.146	v	Ku	6.65	50uS
291	EGYPTSAT CH	11.178	v	Ku	6.60	50uS
292	ART EUROPE	11.554	Н	Ku	6.65	50uS
293	TV SHQIPTAR	11.575	Н	Ku	6.60	50uS
294	DUNA 7	11.596	н	Ku	6.60	50uS
295	LIBYAN TV	11.617	v	Ku	6.60	50uS
296	TV7 TUNISIE	11.658	v	Ku	6.60	50uS
297	TV EUROTICA	11.163	н	Ku	6.65	50uS
298	BT FEED	12.524	H	Ku	6.60	50uS
299	SPARE	12.538	V	Ku	6.60	50uS

СН	SATELLITE	FREQ	POL	BAND	AUDIO	DE-EMP
7E	EUTELSAT 2F4					
300	EBU FEED	10.972	Н	Ku	6.60	50uS
301	EBU FEED	10.987	v	Ku	6.60	50uS
302	EBU FEED	11.009	н	Ku	6.60	50uS
303	EBU FEED	11.058	Н	Ku	6.60	50uS
304	EBU FEED	11.080	v	Ku	6.60	50uS
305	EBU FEED	11.095	н	Ku	6.60	50uS
306	PIK 1 CYPRUS	11.146	Н	Ku	6.60	J17
307	EBU SPORTS	11.163	v	Ku	6.60	50uS
68.5E	PAS 4/7					
308	SIMA-YEH MOGHAVAT	11.170	н	Ku	6.60	50uS
309	IRANIAN EXIL	12.169	Н	Ku	6.60	50uS
310	SABC 1	12.545	v	Ku	6.60	50uS
311	FEED	12.604	v	Ku	6.80	50uS
312	NHK LONDON	12.606	н	Ku	6.80	50uS
313	SABC 3	12.664	Н	Ku	6.60	50uS
314	SABC 2	12.698	н	Ku	6.60	50uS
315	FEED	12.725	Н	Ku	6.60	50uS
316	BBCWORLD	3.864	v	С	6.60	50uS
317	MAHAHRISHI VEDA	3.905	v	С	6.60	50uS
318	SONY ENTERTAINMENT	3.907	н	С	6.60	50uS
319	DD NEWS	4.157	Н	С	6.30	50uS
320	MTV INDIA	4.182	Н	С	7.56/7.74	DNR
321	ZEE MUSIC	4.185	Н	C	6.60	50uS
62.0E	INTELSAT 602					
322	IRIB TV 4	10.964	v	Ku	6.80	50uS
323	IRIB TV 2	10.998	v	Ku	6.80	50uS
324	IRIB TV 3	11.096	v	Ku	6.80	50uS
325	IRIB TV 1	11.174	v	Ku	6.80	50uS
326	M-NET	3.927	н. Н	C	6.80	50uS
60.0E	INTELSAT 604	0.02.		-	0.00	
327	NEWS FEED	4.166	v	С	6.60	50uS
328	FEED	4.188	v	c	6.60	50uS
			-	-		
57.0E	NSS 703	1 1				
329	HSTV CHANNEL 3	3.735	Н	С	6.80	50uS
330	SUN TV	3.750	v	С	6.60	50uS
331	MCOT CHANNEL 9	3.770	н	С	6.80	50uS
332	RTNC	3.798	V	с	6.50	50uS
333	UDAYA TV	3.808	v	С	6.80	50uS
		· · · · · · · · · · · · · · · · · · ·	V	С	6.60	50uS
334	SURYA	3.890	v	v .		
334 335	ETV	3.890 3.917	и Н	č	6.60	50uS
			-	-		50uS 50uS
335	ETV	3.917	H	C	6.60	
335 336	ETV BBCWORLD	3.917 3.924	H	C C	6.60 6.60	50uS
335 336 337	ETV BBCWORLD TVI-TV INDIA MTA	3.917 3.924 4.135	H H H	C C C	6.60 6.60 6.60	50uS 50uS
335 336 337 338	ETV BBC WORLD TVI-TV INDIA MTA INTERNATIONAL	3.917 3.924 4.135	H H H H	C C C C	6.60 6.60 6.60 6.60	50uS 50uS 50uS
335 336 337 338 55.1E	ETV BBC WORLD TVI-TV INDIA MTA INTERNATIONAL INSAT 2DT	3.917 3.924 4.135 4.178	H H H H	C C C C C	6.60 6.60 6.60 6.60 5.50	50uS 50uS 50uS 50uS
335 336 337 338 55.1E 339	ETV BBC WORLD TVI-TV INDIA MTA INTERNATIONAL INSAT 2DT FEED	3.917 3.924 4.135 4.178 3.811	H H H H H	C C C C C C	6.60 6.60 6.60 5.50 5.80	50uS 50uS 50uS 50uS 50uS 50uS

СН	SATELLITE	FREQ	POL	BAND	AUDIO	DE-EMP
343	NATIONAL	3.979	Н	с	5.80	50uS
344	PUNJAB	3.996	н	С	5.80	50uS
345	RAJASTHAN	4.014	н	C	5.80	50uS
346	FEED	4.033	н	С	5.80	50uS
347	ORIYA	4.052	V	С	5.80	50uS
348	BIHAR	4.070	н	C	5.80	50uS
349	FEED	4.089	v	C	5.80	50uS
42.0E	TURKSAT 1C					
350	ATV	10.965	v	Ku	6.65	50uS
351	ATV	10.965	н	Ku	6.65	50uS
352	CINE 5	11.006	v	Ku	7.02	DNR
353	KANAL D	11.026	H	Ku	6.60	50uS
354	SHOW TV	11.048	V	Ku	6.65	50uS
355	STAR TV	11.086	н	Ku	6.60	50uS
356	TRT INT	11.000	v	Ku	6.65	50uS
357	SAMANYOLU TV	11.122	н. Н	Ku	6.65	50uS
358	KANAL 7 INT	11.142	v	Ku	6.65	50uS
359	TRT 1	11.177	н. Н	Ku	6.65	50uS
360	TRT 3	11.465	н	Ku	6.65	50uS
361	TRT 4	11.400	н	Ku	6.65	50uS
362	BRT	11.437	V	Ku	6.65	50uS
363	TRT AVRASYA	11.553	н Н	Ku	6.65	50uS
364	D FUN	11.555	V	Ku	6.65	50uS
365	TRT 2	11.564	H	Ku	6.65	50u3
366	KRAL TV	11.660	Н	Ku	6.65	50uS
367	SUPER SPORT	11.683	V	Ku	6.65	50uS
36.0E	TELSAT SEASAT/ W4	11.005	v	ĸu	0.05	5003
368	D+FEED	10.976	v	Ku	6.60	50uS
369	RASIA TV	12.225	H	Ku		50uS
369	CCG TEST CARD	12.225	- п Н	Ku	6.80 6.60	50uS
31.3E	TURKSAT 1B	12.322	п	ĸu	0.00	5005
31.3⊑ 371	APCA TV	44.000	v	Ku	0.05	50uS
	TELSAT II F3	11.090	v	ĸu	6.65	5005
21.5E 372	TEST	11.012	н	Ku	6.60	50uS
-	TV SHIPTAR	-				
373 16.0E	TV SHIPTAR TELSAT W2	11.556	Н	Ku	6.50	50uS
374	RTM 1	10.964	v	K	6.60	50uS
-			v v	Ku		50uS
375	ALGERIAN	11.095	V	Ku	6.60	
376 377	BHT SAT TV RINIA	11.148 11.163	V H	Ku Ku	6.60 6.60	50uS 50uS
378	SAT-7	11.178 11.280	<u>v</u>	Ku	6.60	50uS 50uS
379	RADIO TE		H	Ku	6.60	
380	JSC-AL	11.444	Н	Ku	6.60	50uS
381	NILE TV	11.471	V	Ku	6.60	50uS
382	ESC 1	11.512	V	Ku	6.60	50uS
383	JAMAHIRY	11.554	V	Ku	6.60	50uS
384	SYRIA TV	11.569	н	Ku	6.60	50uS
385	TV 7	11.599	V	Ku	6.60	50uS
10.E	TELSAT W1				-	ļ
386	NTV	10.987	н	Ku	6.65	50uS
387	TV MONTE	11.080	н	Ku	6.60	50uS

СН	SATELLITE	FREQ	POL	BAND	AUDIO	DE-EMP
388	TGRT	11.095	v	Ku	6.65	50uS
389	HERBALIF	11.163	н	Ku	6.50	50uS
390	INTERSTA	11.177	V	Ku	6.65	50uS
391	SAMANYOL	11.621	v	Ku	6.65	50uS
392	MORAL FM	11.095	v	Ku	7.74	DNR
393	METRO FM	11.177	v	Ku	7.02/7.20	DNR
394	KRAL FM	11.177	v	Ku	7.38/7.56	DNR
395	SUPER FM	11.177	v	Ku	8.10/8.28	DNR
396	BURU RAD	11.621	v	Ku	7.02/7.20	DNR
397	DYNYA RA	11.621	v	Ku	7.74/7.92	DNR
398	RADYO SA	11.621	v	Ku	8.10/8.28	DNR
5.0E	SIRIUS 2/3	-				
399	VH-1	11.785	v	Ku	6.60	50uS
400	TEST CARD	11.809	н	Ku	6.60	50uS
01	BLOOMBERG	11.823	V	Ku	6.60	50uS
402	ZTV	11.862	v	Ku	6.60	50uS
403	HALLMARK	11,900	v	Ku	6.60	50uS
404	VIASAT P	11.919	Ĥ	Ku	6.60	50uS
405	TV 4	11.938	v	Ku	7.02/7.20	DNR
406	TV 6	12.015	v	Ku	6.60	50Us
400	NIKELOD	12.015	v	Ku	6.60	50uS
408	TV 3 SWE	12.092	v	Ku	6.60	50uS
409	MTV NORD	12.207	v	Ku	6.60	50uS
410	CYPRUS S	12.265	н Н	Ku	6.60	50uS
410	VIASAT S	12.322	V	Ku	6.60	50uS
412	KANAL 5	12.476	v	Ku	6.60	50uS
412	TEST CARD	12.470	v	Ku	6.50	50uS
414	THE VOICE	11.938	v	Ku	7.74/7.92	DNR
415	RIK 1	12.265	н	Ku	7.20	DNR
415	RIK 3	12.265	Н	Ku	7.74	DNR
410	RIK 3	12.265	Н	Ku	7.74/7.92	DNR
418	THE VOICE	12.205	V	Ku	7.74/7.92	DNR
410 1.0W	THOR1/2/3/INTE		v	ĸu	1.14/1.92	DNK
419	TV DANMARK	11.216	v	Ku	6.60	50Us
419	NORSK TV 2	11.216	- V	Ku	6.60	500S
420	C+NORGE	11.216	H	Ku Ku	6.60	50uS
421	NRK	11.293	H	Ku Ku	6.60	50uS
422	KANAL 5	11.325	н V	Ku Ku	6.60	50US
423	NRK 1	11.341	- V H	Ku Ku	6.60	500s
424	TV NORGE	11.337	H	Ku Ku	6.60	50uS
425	DR2	11.421	н V	Ku Ku	6.60	50uS
426	TV 2 ZULU	11.434	V	Ku Ku	6.60	50uS 50uS
427	3+	11.727	V H	Ku Ku	6.60	50uS
-	÷.	1	H V			
429	FOX KIDS UK	11.797	-	Ku	6.60	50uS
430	TV 1000 CINA	11.823	H V	Ku	6.60	50uS
431	SPORT NORDIC	11.862		Ku	6.60	50uS
432	TCC NORDIC	11.938	V	Ku	6.60	50uS
433	CANAL+GUL	12.015	V	Ku	6.60	50uS
434	K-TV	12.054	Н	Ku	6.60	50uS
435	C+SVERIGE	12.092	V	Ku	6.60	50uS
436	CARTOON	11.001	v	Ku	6.20	50uS

СН	SATELLITE	FREQ	POL	BAND	AUDIO	DE-EMP
437	TV 1000	11.054	v	Ku	6.60	50uS
438	TV 3N	11.096	н	Ku	6.60	50uS
439	TV 3D	11.473	V	Ku	6.60	50uS
440	CNN	11.485	Н	Ku	6.60	50uS
441	TV 3 S	11.597	V	Ku	6.60	50uS
442	RTG	3.800	Н	С	6.60	50uS
443	TV 2	3.850	н	С	6.20	50uS
444	PEOPLE' S TV	4.022	н	С	6.60	50uS
4.0W	AMOS 1	i i		ĺ		1
445	IBA CH 1	11.012	v	Ku	6.60	50uS
446	METV	11.181	v	Ku	6.60	50uS
447	CHANNEL 2	11.598	v	Ku	6.20	50uS
5.0W	TELECOM 2C					
448	M6	12.522	v	Ku	5.80	50uS
449	FRANCE 2	12.564	v	Ku	5.80	50uS
450	TV 5	12.585	Ĥ	Ku	5.80	50uS
451		12.606	v	Ku	5.80	50uS
452	TV 5 INFO	12.600	v	Ku	5.80	50uS
453	C+FRANCE	12.647	v	Ku	5.80	50uS
454	TF 1	12.690	v	Ku	5.80	50uS
455	FRANCE 3	12.030		Ku	5.80	50uS
435 8.0W	TELECOM 2A/2D	12.752	v	Nu	5.00	5000
456	C+FRANCE	12.640	v	Ku	7.02/7.20	DNR
430 11.0W	EXPRESS 3A	12.040	v	ĸu	1.02/1.20	DINK
457	ORT	3.675	v	с	6.60	50uS
457 12.5W	TELSAT II F2	3.075	v	č	0.00	5005
458	DIGITALY	12.554	н	Ku	6.60	50uS
400 18.0W	INTELSAT 705	12.554	п	ĸu	6.60	50uS
459		44.040	v	Ku		
459	FEED	11.012	и Н	Ku	6.60	50uS
460	FEED	11.052	H	Ku Ku	6.60	50uS 50uS
-	FEED	11.092			6.60	
462	FEED	11.095	н	Ku	6.60	50uS
463	FEED	11.136	н	Ku	6.60	50uS
464	FEED	11.138	V	Ku	6.60	50uS
465	FEED	11.548	V	Ku	6.60	50uS
466	FEED	4.166	V	С	6.60	50uS
467	FEED	4.188	V	С	6.60	50uS
21.5W	NSS 803					
468	BT	11.500	н	Ku	6.60	50uS
469	FEED	11.525	Н	Ku	6.60	50uS
470	FEED	11.530	н	Ku	6.60	50uS
471	FEED	11.590	v	Ku	6.60	50uS
472	FEED	11.624	v	Ku	6.60	50uS
473	BT	11.675	v	Ku	6.60	50uS
474	FOX FEED	11.680	v	Ku	6.60	50uS
475	DW TV	11.735	н	Ku	6.80	50uS
476	DW TV	11.735	v	Ku	6.80	50uS
477	FEED 193L	11.840	н	Ku	6.60	50uS
478	FEED	11.840	v	Ku	6.60	50uS
479	FEED	12.588	v	Ku	6.60	50uS
480	CFI AFRIQUE	3.724	v	С	5.80	50uS

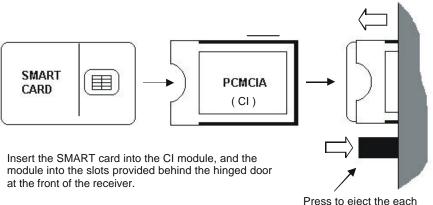
СН	SATELLITE	FREQ	POL	BAND	AUDIO	DE-EMP
481	TV 5	3.924	V	С	6.60	50uS
27.5W	INTELSAT 605					
482	TPA	3.799	Н	С	6.65	50uS
483	FEED	3.890	Н	С	6.60	50uS
484	BOP TV	3.898	Н	С	6.60	50uS
485	ALGERIE	4.002	V	C	7.50	50uS
486	NTA	4.065	Н	С	6.20	50uS
487	SIS	11.591	Н	Ku	6.60	50uS
30.0W	HISPASAT 1A/1B/1C					
488	C+ESPANA	12.711	Н	Ku	6.60	50uS
31.5W	INTELSAT 801					
489	TELE SAHEL	3.918	v	С	6.60	50uS
490	TELE SAHEL	11.160	V	С	6.60	50uS
34.5W	INTELSAT 601					
491	MTA INT	11.010	v	Ku	6.50	50uS
492	MTA INT	11.010	v	Ku	7.02	50uS
493	MTA INT	11.010	v	Ku	7.20	50uS
494	MTA INT	11.010	v	Ku	7.38	50uS
495	MTA INT	11.010	v	Ku	7.56	DNR
496	MTA INT	11.010	v	Ku	7.74	DNR
497	MTA INT	11.010	V	Ku	7.92	DNR
498	FEED	11.010	v	Ku	6.60	50Us
499	FEED	4.166	V	Ku	6.60	50uS
500	FEED	4.188	v	Ku	6.60	50uS
40.5W	NSS 806					
501	ATC	4.167	н	С	6.60	50uS
43.0W	PAS 3R/6/6B					
502	CHURCH	12.515	Н	Ku	6.60	50uS
503	TEST CARD	12.525	Н	Ku	6.60	50uS
504	US PGA	12.540	н	Ku	6.60	50uS
505	FEED	12.700	v	Ku	6.60	50uS
506	PGA	12.700	н	Ku	6.60	50uS
507	FEED	12.705	Н	Ku	6.60	50uS
508	FEED	12.730	Н	Ku	6.60	50uS
45.0W	PAS 1					
509	PANAMERICANA	3.771	н	С	6.80	50uS
510	AMERICA	3.789	Н	C	6.80	50uS
511	LATINA	3.869	Н	С	6.80	50uS
512	RTP CANAL 7	3.930	Н	С	5.80	J17
513	FEED	11.724	Н	Ku	6.80	50uS
514~600	SPARE	11.200	н	Ku	7.02/7.20	DNR

# Audio Table

СН	MO/STEREO	FREQ L/R	B/W	DE-EMP
001	STER	7.02/7.20	130	DNR
002	STER	7.38/7.56	130	DNR
003	STER	7.74/7.92	130	DNR
004	STER	8.10/8.28	130	DNR
005	MONO	7.02/7.02	130	DNR
006	MONO	7.20/7.20	130	DNR
007	MONO	7.38/7.38	130	DNR
008	MONO	7.56/7.56	130	DNR
009	MONO	5.80/5.80	280	50uS
010	MONO	5.80/5.80	280	J17
011	MONO	5.80/5.80	380	50uS
012	MONO	5.80/5.80	380	J17
013	MONO	6.20/6.20	280	50uS
014	MONO	6.50/6.50	280	50uS
015	MONO	6.60/6.60	280	50uS
016	MONO	6.60/6.60	280	J17
017	MONO	6.60/6.60	380	50uS
018	MONO	6.65/6.65	280	50uS
019	MONO	6.65/6.65	280	50uS
020	MONO	7.00/7.00	130	50uS
021	MONO	7.50/7.50	130	50uS
022	STER	5.58/5.76	130	50uS
023	STER	5.94/6.12	130	50uS
024	STER	6.30/6.48	130	50uS
025	MONO	6.80/6.80	130	50uS
026	MONO	7.40/7.40	180	50uS
027	MONO	7.74/7.74	130	DNR
028	MONO	6.70/6.70	180	DNR
029	MONO	7.38/7.38	130	50uS
030	MONO	7.50/7.50	130	DNR
031	MONO	7.90/7.90	130	50uS
032	MONO	8.40/8.40	130	50uS
033	MONO	7.80/7.80	280	50uS
034	MONO	7.92/7.92	130	DNR
035	MONO	6.66/6.66	280	50Us
036	MONO	6.40/6.40	280	50uS
037	MONO	5.50/5.50	280	50uS
038	MONO	6.94/6.94	280	50uS
039	MONO	7.80/7.80	280	50Us
040	MONO	8.10/8.10	280	50uS
040	MONO	8.28/8.28	280	50uS
042	MONO	8.46/8.46	280	50uS
042	STER	7.56/7.74	130	DNR
044	STER	6.66/6.84	130	DNR
045	MONO	7.25/7.25	130	50uS
046	MONO	6.84/6.84	280	50u0
047	MONO	7.92/7.92	130	DNR
048	STER	7.74/7.92	130	DNR
049	STER	7.38/7.56	130	DNR
050	STER	7.02/7.20	130	DNR

### Common interface:

Your receiver is equipped with a twin-slot Common Interface (CI), accepting both Type 1 and Type 2 PCMCIA modules (see diagram below). Plug in the appropriate CI module together with a valid SMART Card. You will then have access to the respective scrambled and pay-per-view services.



of the CI modules

The CI and SMART card modules determine the programmes that can be de-scrambled. This receiver supports two CI slots so you can plug in two different modules.

Each SMART card contains your subscription details. You can view your entitlement via the CI option on the receiver's main menu .

Insert the CI module into the slot provided (behind the hinged door on the front panel) until the eject button is fully extended. Press the button to eject the CI module.

The SMART card must be inserted with the gold contact pad facing up. Ensure that these contacts are clean before inserting it into the CI module.

### Note:

Both the SMART card and CI modules support "hot-plugging", this means that the SMART card and CI module may be inserted or removed with the receiver switched on.

Both the CI module and SMART card contain delicate electronic circuitry, please handle them with care when inserting and removing them from the receiver.

Under NO circumstances bend the SMART card or place it on a hot surface. This may damage the card and the CI module.

At times, certain CI modules may stop responding causing the receiver to stop decoding. When this happens, simply switch the receiver to stand-by and then on again to reset the CI module.

## Common Interface (cont.):

To access the Common Interface menu:

Press Menu, select Cl.

The information available on the CI menu depends on the CI module provider. Typically they will contain subscription information such as subscription duration, accessible programmes, maturity level, network information etc. For more information, please consult Your Pay-TV service provider. Irdeto VIACCESSV

### On-screen messages:

Apart from the Common Interface menu, other on-screen messages may appear while in viewing mode. Here are two examples:

When a message similar to the one on the right appears, insert the appropriate SMART card to access the channel.

Your SMART card cannot access the channel -You may require a different SMART card for this programme. You should note that these messages come from the CI/SMART card module and so will vary. Please refer to the information provided with your Subscription / CI module. Irdeto Please insert smart card

You have no access to This channel. Press OK to continue.

Sometimes the above screen may appear over a de-scrambled channel. This may be caused by having two identical CI modules inserted but each with a SMART card from a different service provider (for example: two Viaccess CI modules with one using a TPS SMART card and the other using an ABSAT SMART card). In this case as a TPS channel is being accessed, the TPS SMART card will de-scramble that channel but at the same time the ABSAT SMART card will display the 'NO ACCESS' message on-screen. When this happens, press OK to cancel the message.

# Technical Specifications:

### **Electrical Specification**

	Video Inputs:	Input impedance 75Ω 0.7V pk-pk on R/G/B, 1V pk-pk on CVBS/Y
	Video Outputs:	Output impedance $75\Omega$ 0.7V pk-pk on R/G/B, 0.1V pk-pk on CVBS/Y into $75\Omega$ load.
	Audio Inputs: Audio Outputs:	Input impedance >50k $\Omega$ AC coupled Output impedance 600 $\Omega$ AC coupled Minimum load impedance 20k $\Omega$
	Mains power:	90-250VAC 50-60Hz
Connect	ors	
	4 x Phono/RCA:	Composite video out 0/12V out Audio left Audio right
	RS232:	9 Way D RS232 DCE serial port
	Modulator/Bypass:	UHF in/out IEC male/female or: VHF in/out F-type (country dependent)
	Satellite IF input: Satellite IF loop out:	F-type F-type
Tuner		
	Loop though Digital tuner with LNB input, and loop Full power loop through supported	p output
	Frequency Range at LNB input:	920-2150MHz
	Input connector:	F-type female
	Impedance:	75Ω
	Input sensitivity:	-30 to -65dBm
LNB sup	oply voltages	
	Supply voltage software switchable:	13V/18V
	Current limit: Software controlled LNB power on/off	0 to 400mA
	LNB 22kHz Tone switching:	
	Amplitude:	0.6Vpp (±0.2V)
	Frequency:	$22$ KHz $\pm$ 2KHz
	Duty Cycle: Full DiSEqC specification V1.0 suppo Universal LNB supported Software controlled on/off	50% (±20%) rted
	0/12V accessory switch:	Software controlled on/off
Demodul	ator and FEC	
	Demodulator:	Fully DVB compliant
	Type:	QPSK
	Filtering: Input symbol rate:	0.2 or 0.35 Square root raised cosine 2 Msps to 45 Msps fully variable
	Forward Error Correction:	
	Code rates supported:	1/2, 2/3, 3/4, 5/6, 7/8 (Auto Sensed)

#### Transport, A/V Decoding

Demultiplexor: PID Filters: PCR recovery:

Video Decoder: Bitstreams Supported:

Video Resolution:

#### Video Memory:

Audio Decoder: Type: Layers: Audio Modes: Output Sample Rates Supported: Data rates supported

PAL/NTSC Encoder: Supported Outputs:

UHF/VHF Modulator: Tuning Range: (UHF): or (VHF):

### **Processor and memory**

System CPU: RAM: ROM: EEPROM: **Power consumption** Operational 1 Video, 1 Audio, 30 general purpose (SI capable) internal 27MHz PLL locked to PCR

MPEG2 MP@ML to ISO/IEC 13818-2 MPEG1 to ISO/IEC 11172-2 Up to 720 x 576 pixels at 25 fps for PAL Up to 720 x 480 pixels at 30 fps for NTSC 16Mbit

MPEG1 I and II Mono, Dual, Stereo, Joint Stereo 16kHz, 22.05kHz, 24kHz, 32kHz 44.1kHz, 48kHz 8 to 448 Kbps

Composite, RGB, S-Video NTSC-M, PAL B,D,G,H,I,M,N,Nc (country dependent)

CH21 to CH69

CH3, 4 (country dependent)

40 MIPS, Cached 512k standard 1MB standard 256kBit

30W max.